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# THE INFLUENCE OF DISTRIBUTOR SUPPORT AND PRICE ADAPTATION ON THE EXPORT PERFORMANCE OF SMEs

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## **Abstract:**

Although a number of studies have examined the antecedents of export performance, little empirical attention has been given to the influence of distribution support and price adaptation on export performance in comparison with other determinants. To address this gap in literature, this study develops a new model, which integrates these two constructs as key variables affecting export performance. A sample of senior managers of export firms in Italy is used to test the hypotheses. The results suggest that support given to the distributor has a strong and positive impact on the firms' export performance. In addition, the findings indicate that distribution support plays a mediating role in our model. Contrary to expectations, the results show that price adaptation has no significant impact on export performance. Although in the literature price adaptation and export performance is assumed to have a linear relationship, further analysis shows a non-linear (U-shaped) relationship between price adaptation and export performance. The implications of these findings along with the limitations of the study are discussed.

**Keywords:** export performance, price adaptation, distribution support, non-linear relationship

## **1. INTRODUCTION**

Contemporary scholars have suggested that the globalization of markets in recent years has made it imperative for small and medium sized enterprises (SMEs) to look for foreign market opportunities in order to gain competitive advantage (Dhanaraj and Beamish, 2003; Zain and Ng, 2006). In export-oriented countries, SMEs have long viewed foreign market opportunities as a growth path, and an alternative to growth strategies based on extension of the market for existing products or a modification of the product range (Bonaccorsi, 1992). In addition, exporting is a particularly attractive mode of foreign market entry for SMEs as it offers a greater degree of flexibility and minimal resource commitment. Export success for SMEs is also relevant for governments as it contributes to the economic development of nations.

Several studies in the area attribute the limited ability of SMEs to acquire information and knowledge about foreign markets as the main cause for their lack of involvement and success in exporting (Julien and Ramangalahy, 2003; Sousa and Bradley, 2009a). This lack of information is often a major concern as it constrains any export attempts and heightens the perception of risk and uncertainty (Benito et al., 1993). This emphasizes how important it is for these firms to establish close relationships with distributors in the foreign market. We will therefore examine the importance of distribution support to explain the export performance of SMEs. Specifically, we will investigate the determinants of distribution support and its direct impact on export performance. In our study distribution support refers to the level of assistance given to the foreign distributor

as well as the level of cooperation and interaction that exists between the firm and the distributor.

In our model, we have also selected price adaptation as a key strategic variable to explain export performance. Price adaptation refers to the degree to which the pricing strategies for a product differ across national boundaries. Pricing decisions are of paramount importance to the success of a firm because they have a direct effect on revenue. Price is also the most flexible element of the marketing mix, in that pricing strategies can be changed relatively quickly when compared with the other elements (Tzokas et al., 2000). Not surprisingly, it has been argued that price formulation is one of the keys to profitability for most small and medium sized enterprises (Zeng et al., 2011). However, despite its crucial role in explaining the export performance of a firm, few guidelines exist to help managers with their international pricing efforts. The level of difficulty is further compounded since managers face unique constraints in each export market destination that need to be taken into account when developing their pricing strategy. Although managers acknowledged export pricing as the most critical pressure point of the 1980s (Cavusgil, 1988), price remains the most neglected variable when compared to the other elements of the marketing mix (Sousa and Bradley, 2008).

The need to focus on distribution support and pricing decisions is further illustrated by the fact that only a limited number of studies have specifically focused on uncovering the influence of price and place decisions (Chung, 2008). Moreover, previous studies (e.g. Bonaccorsi, 1992) suggest that when entering foreign markets, most SMEs do not adapt

their product or promotion strategy due to a lack of resources and/or knowledge of the idiosyncrasies of the foreign market. Pricing decisions, however, can be changed relatively more quickly than other marketing decisions (Diamantopoulos, 1991), a fact which is particularly relevant in the context of SMEs. As for distribution support, previous studies (e.g. Cavusgil and Zou, 1994) have considered it as the key component of a firm's export distribution decisions. The relationship with distributors is an important factor to consider when explaining the export success of SMEs because distributors have access to customers and possess important local-market knowledge (Bello et al., 2003) and offer SMEs a relatively easy and low-cost way of entering a foreign market.

The contribution of this paper is therefore twofold. Firstly, we examine the determinants of distribution support and its impact on export performance. Although the importance of supporting distributors in the foreign market appears to make sense, some researchers argue that the level of export performance is not affected by the level of support provided to the overseas distributor (e.g. Koh, 1991). Moreover, our model not only highlights the importance of sustaining distribution support for achieving export success, but also uncovers new insight that indicates that distribution support mediates the effect of technology intensity of the product on export performance. Secondly, we investigate the drivers of price adaptation and its impact on the export performance of the firm. A variety of studies focusing on the determinants of exporting success found that pricing plays a critical role in export performance (e.g. Theodosiou and Leonidou, 2003; Chung, 2008). However, despite long-standing interest in price adaptation, empirical research into this issue has been scant and the findings contradictory (Sousa et al., 2008). A possible

explanation for such inconsistent results in the literature may be due to a lack of precision when specifying the form of the relationship between price adaptation and export performance. Although in the literature price adaptation and export performance is assumed to have a linear relationship, a recent paper by Tan and Sousa (2011) suggests that a non-linear relationship may exist between these two constructs, and that this needs to be taken into account when examining the link between price adaptation and export performance. Consequently, we propose to address this gap in the literature by examining whether the relationship between price adaptation and export performance is linear or quadratic.

In the next section, the theoretical background to our research is presented, along with the development of specific research hypotheses. Subsequently, we describe the research methodology and test results. After discussing the implications for managers, the paper concludes with the limitations of this research.

## **2. THEORETICAL BACKGROUND AND HYPOTHESES**

### **2.1. Theoretical Background**

Although historically the resource based view theory (RBV) and contingency theory have been positioned as competing theories, certain studies (Morgan et al., 2004) have demonstrated how these two different viewpoints can be synthesized into a robust theoretical model. The resource based view derives from an internal analysis of the firm and its resources, which can be tangible and intangible (Barney, 1991). According to this

theory, the set of resources accumulated by the company is so unique that it can be considered as a competitive advantage (Zou et al., 2003). Heterogeneity in terms of resources and a company's capacity to manage them is an advantage in the export market and this could explain differences in firm performances. On the other hand, the contingency theory suggests that similar or identical strategies may not be appropriate in all situations, but should instead be adapted (Robertson and Chetty, 2000). From the contingency theory perspective, export activities are thus considered a strategic response by management to the interaction between a firm's internal and external resources (Cavusgil and Zou, 1994).

Consistent with the contingency theory, our model predicts a direct relationship between pricing and distribution strategies and export performance. Pricing decisions are particularly important for SMEs as they have been identified as one of the key strategic decisions that managers have to make to ensure profitability (Zeng et al., 2011). For SMEs, distribution support is also very important as it plays a crucial role in identifying global market opportunities and extending connections with foreign customers. For SMEs it is also relevant that the information acquired from distributors tends to be cheaper and easier to obtain than, for instance, using a marketing research agency (Gripsrud et al., 2006). Indeed, the information that can be obtained through a collaborative and close relationship between exporters and channel partners may be considered more reliable (Gripsrud et al., 2006). In addition, trust-based personal connections and referral can also facilitate the key capabilities of these firms in terms of the speed and flexibility of response to global markets (Oviatt and McDougall, 2005). These benefits are seen to

reduce information and knowledge barriers, thereby facilitating successful cross-border business operations and reducing monitoring costs (Roath and Sinkovics, 2006).

The export literature indicates that pricing decisions and support given to the distributor depends on contingent variables in a dynamic environment (Walters, 1989; Cavusgil and Zou, 1994). For instance, pricing decisions can be difficult, and often speculative, due to the uncertainties associated with today's dynamic environments (Forman and Hunt, 2005). As such, the pricing process is too complex to be managed by a universal and general strategy and must therefore be related to external forces (Myers, 2004). Empirical studies in the export literature support the contention that firms need to adjust their pricing and distribution strategies according to the environment in which they operate (e.g. Theodosiou and Katsikeas, 2001). It is generally acknowledged that the macro-environment (e.g., economic environment) and the micro-environment (e.g., competition intensity) in the foreign market will have a significant influence on the firms' strategies (Chung and Wang, 2007; Myers and Harvey, 2001). Two environmental market factors, namely competitive intensity and environmental characteristics, have been identified as significant influences on strategic decisions (Cavusgil and Zou, 1994). In line with the contingency theory, our theoretical model indicates that both market competition and environmental characteristics have an impact on the firm's pricing strategies and distribution support (Cavusgil and Zou, 1994).

Competitive intensity is the degree of competition a company faces in the market (Jaworski and Kohli, 1993). It has been found to be a key determinant of strategic



decisions and is particularly likely to affect pricing decisions (Powers and Loyka, 2010; Chung, 2005) and the support given to distributors (Mudambi and Aggarwal, 2003; Terpstra, 1987). Competitive pressures may force managers to adapt their strategies to better meet consumers' personalized demands in foreign markets as well as to match price levels of local competitors. In this context, managers may be required to adjust their pricing and/or distribution strategies in order to remain competitive. Therefore, competitive intensity has been identified by managers and researchers as one of the major determinants to consider when deciding the appropriate strategies (Tan and Sousa, 2011).

In this study, environmental characteristics refer to the differences between markets in terms of economic and industrial development, marketing and communications infrastructure, and technical requirements. These characteristics have consistently been found to have a significant impact on a firm's marketing strategy (e.g. Theodosiou and Leonidou, 2003) since the external environment imposes pressures to which it must respond in order to prosper. Markets across countries reflect unique features and these differences play a crucial role in explaining strategic decisions (Cavusgil and Zou, 1994). Strategic decisions are altered when substantial differences exist between markets (Sousa and Bradley, 2008). Consequently, the examination and inclusion of environmental characteristics is necessary in order to fully understand the firm's export activities.

In addition to the external factors affecting export strategy, we have followed Edelman et al. (2005) study and model the alignment between resources and strategies as a mediated relationship. According to the RBV theory, it is the use of resources that leads to firm

growth and performance (Penrose, 1959; Peteraf and Barney, 2003), in which marketing strategy decisions should leverage the resources available to a firm (Srivastava et al., 2001; Hunt and Morgan, 1996; Dickson, 1996).

In our study we propose size of the firm and technology intensity of the products as two important internal resources of the company. The size of the firm has been acknowledged to be an important resource of the firm (Makhija, 2003; Dickson et al., 2006; Majocchi et al., 2005). In fact the size of the firm has been considered the main source of heterogeneity in firms' performance (Halkos and Tzeremes, 2007). Our model, therefore, draws on the RBV theory to argue that firm size is an important determinant of the firms export activities. The reasoning behind this argument is that larger firms have more internal resources which can be deployed to conduct and manage international activities.

The RBV theory also acknowledges that the technological intensity of the products exported is another major internal resource for the firm. Technological intensity refers to the extent of scientific know-how that is embodied in a product (John et al., 1999). Technological resources are the tangible and intangible technical assets of the firm. These resources are particularly important because they provide the firm with an innovative capacity and are important for the creation of competitive advantages (Rodríguez and Rodríguez, 2005). Competitive advantages derive from the capability to develop new technologies more rapidly than other firms, and from the ability to promote and facilitate the creation and dissemination of technological innovations (Guan and Ma, 2003). In this case, a high degree of technological intensity provides the firm with unique technological

know-how, which often promotes the expansion of the firm overseas and depending on its technological intensity, a firm should be able to exploit its advantage in foreign markets (Dhanaraj and Beamish, 2003). In addition, technological resources can confer competitive advantage based on differentiation. Superior design, performance and quality provide the firm with a higher degree of competitiveness. Technological resources are also highly knowledge-intensive assets. Technology is often inhibited by a lack of creativity and insight in terms of the use of materials, functionality and design. Much of this knowledge has a crucial tacit component, making it difficult to codify and transfer to other companies (Rodríguez and Rodríguez, 2005). It follows that because of the increasing rate of product imitation from competitors in emerging countries, the tacit nature of knowledge makes technological products difficult to imitate. Not surprisingly, the role of technological intensity as one of the main factors to explain firm's export operations has been emphasized in the literature (e.g. Cavusgil and Zou, 1994; Rodríguez and Rodríguez, 2005).

Specifically, we propose that strategic decisions such as price adaptation and distribution support are affected by internal and external factors. In turn, the export performance of the firm is determined by internal factors and strategic decisions such as price adaptation and distribution support. The hypothesized relationships are subsequently described on the basis of theoretical and empirical support available in the literature. An overview of the conceptual framework is presented in Figure 1.

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## **2.2. Research Hypotheses**

Environmental differences between markets in terms of economic and industrial development, marketing and communications infrastructure, and technical requirements are expected to influence the amount of support given to a foreign distributor. However, the direction of the impact is less clear. For instance, some studies argue that the greater the differences between markets, the harder it will be for international marketers to communicate with foreign intermediaries (Nes et al., 2007; Solberg, 2008) and consequently less interaction and support will be given to the distributor. We, however, postulate the relationship to be positive, that is, the greater the environmental differences between the home and foreign market, the higher the likelihood that the firm will increase its level of interaction and cooperation with the distributor. The literature indicates that when a firm attempts to enter a country considered dissimilar to the home country, uncertainty arises, since the difficulty of obtaining and interpreting information increases (Erramilli and Rao, 1993; Boyacigiller, 1990). This lack of adequate information makes it difficult for firms to predict the consequences of their strategic decisions (Achrol and Stern, 1988), which can lead to erroneous decisions and/or a reduction in exporters' ability to respond to the changing environment in a timely manner (Sousa et al., 2008). Thus, an incomplete understanding of the foreign environment causes the firm to rely upon foreign distributors for guidance (Zhang et al., 2003) because they possess crucial local-market knowledge. Cooperation between suppliers and distributors can reduce waste and facilitate the information flow, thereby enhancing responsiveness to changes in the market (Matanda and Freeman, 2009). It is therefore expected that as the differences between markets increase, the level of interaction and cooperation between the firm and

the foreign distributor also increases. In accordance with the above discussion, we propose the following:

*H1: Environmental differences between the home and foreign market positively affect the level of support given to the foreign distributor*

Recent empirical studies (Myers et al., 2002; Sousa and Bradley, 2008) indicate that environmental differences between the home and foreign market influence the degree of price adaptation by firms in international markets. Similarities drive firms toward standardization, whereas market diversity drives them toward adaptation (Jain, 1989). A price adaptation strategy may yield better rewards when environmental differences exist between the home and foreign market. The economic and industrial development of a country determines the prices customers are able and willing to pay for certain products. Consumers in countries at a similar stage of economic and industrial development are more likely to have a similar consumer demand, life style pattern and purchasing power (Chung, 2005). Differences in the price elasticity of demand could, therefore, lead to a modification in the pricing strategy (Baalbaki and Malhotra, 1993; Walters, 1989). Moreover, the need to comply with different technical requirements often obliges firms to adapt their products, thereby incurring in extra costs that force them to adapt their pricing strategies (Theodosiou and Katsikeas, 2001). Firms are therefore able to ensure responsiveness to changing market conditions and environmental forces, through the employment of an adaptive pricing strategy (Griffith, 2010). Based on the above discussion, we expect the following:

*H2: Environmental differences between the home and foreign market  
positively affect the degree of price adaptation*

The degree of competitive intensity of the export market is another factor that influences the level of support provided to the distributor. Competitive intensity refers to the extent to which a firm faces competition in a market (Jaworski and Kohli, 1993). While it is acknowledged that the characteristics of international markets can influence the quality and closeness of the relationship that develops between manufacturers and their foreign-based distributors (Bello et al., 1996), the direction of the impact of competitive intensity on distribution support is less obvious in the literature. For instance, in highly competitive markets where changes happen rapidly, it may either motivate the parties to engage in close cooperative actions to respond more effectively to change or alternatively lead them to reduce their reliance on each other (Bello et al., 2003) and prioritise other less competitive markets. In our study, we propose that market competition has a positive impact on the support given to the distributor. When competition in a market is intense, customers can choose from many alternatives (Kohli and Jaworski, 1990). In this context, supporting the distributor is particularly important in order to ensure that they provide adequate promotion, timely delivery, and proper maintenance and service (Terpstra, 1987; Cavusgil and Zou, 1994). As a result, in competitive intensive markets firms need to collaborate with distributors to achieve better performance (Mudambi and Aggarwal, 2003; Kalafatis, 2002). Therefore, we suggest the following:

*H3: the level of competitive intensity of the foreign market positively affects  
the level of support given to the foreign distributor*

The level of competitive intensity may also influence the degree of price adaptation. This is consistent with Myers et al. (2002) who claim that given the increasing competitive intensity of global markets, firms have to be more flexible in setting prices. As competitive levels within the export market rise, the firm must price its product at or near that of the competition in order to survive (Simon, 1995). Firms should therefore analyze and compare the pricing strategies of their competitors in the foreign market in order to have a reference for developing their pricing strategies in export markets. In the event that a firm opts for a standardized pricing strategy, there will be always some competitors willing to provide a better offer to address consumer needs (Lages and Montgomery, 2005). Thus, in markets where competition is intense, exporters must constantly monitor their prices in relation to the prices and offerings of competitors (Cavusgil, 1988) to ensure that the export venture is not undermined by competitors. This argument is consistent with Powers and Loyka (2007) findings whereby in highly competitive markets the need for pricing differentiation becomes even greater. Therefore, as the competitive intensity of the export market increases, the more likely it is that the firm will adopt a price adaptation strategy. Hence:

*H4: the level of competitive intensity of the foreign market positively affects  
the degree of price adaptation*

The technological intensity of the product is included in our model as a potentially significant variable influencing distribution support. A number of researchers point out that manufacturers of technology-intensive products need to provide increased support

for foreign distributors so that the product can be properly handled, marketed, and serviced (e.g. Cavusgil and Zou, 1994; Cooper and Kleinschmidt, 1985; McGuinness and Little, 1981). This is consistent with the argument posited by Bello et al. (2003) that customers of technology intensive products place demands on manufacturers and distributors that require them to collaborate intensively as well as exchange information frequently. The manufacturers and foreign distributor must coordinate a variety of pre-sale (technical analysis, customer evaluation) and post-sale (repair, servicing) services that become increasingly important as the technical nature of the export product increases (Celly and Frazier, 1996). Thus, we can advance the following hypothesis:

*H5: the degree of technology intensity of the product positively affects the level of support given to the foreign distributor*

The relationship between technology intensity and price adaptation has been largely ignored in the literature. Nonetheless, we predict that the technological intensity of the product to be positively related to the degree of price adaptation. Previous studies (Cavusgil and Zou, 1994; Chryssochoidis and Theoharakis, 2004) have found technology orientation to have a positive impact on price competitiveness, suggesting that the greater the technology orientation of the product, the more likely it is that exporters will adapt their prices in order to remain competitive in the foreign market. Technology intensive products are also characterized by a short product life cycle curve (Rosenau Jr, 1988; Sahadev and Jayachandran, 2004). This is a consequence of the constant technological changes that characterize technology intensive products. Likewise, the price of



technologically short-lived products needs to be adapted rapidly as newer products enter the market (Samiee and Roth, 1992). Thus, based on the above discussion, we predict the following hypothesis:

*H6: the degree of technology intensity of the product positively affects the degree of price adaptation*

It is expected that the degree of technology intensity of the product positively affects a firm's export performance. It has been indicated that the core competitiveness of SMEs is based on manufacturing-related quality factors, such as product innovation, reliability and durability, performance and product technology (Bonaccorsi, 1992). Zhou et al. (2005) also found that technology orientation strongly correlates with technology-based innovation, which in turn has a significant and positive impact on a firm's performance. Technology intensity also means that firms can use their technical knowledge to build a new technical solution to answer and meet new needs of their customers (Gatignon and Xuereb, 1997) thereby increasing the firm's performance. This relationship between technology and performance appears to be particularly conspicuous in high-tech industries. The technology profile of a firm might be considered a relevant resource in order to achieve competitive advantage (Yeoh and Roth, 1999). For instance, in the case of science-based firms, Pla-Barber and Alegre (2007) reported that the technology profile is a structural factor that positively affects the export intensity of the firm. Although the relationship between technology intensity and export performance has been largely ignored in the literature, the positive impact of technology intensity on export

performance has been reported (e.g. Solberg and Olsson, 2010; Beleska-Spasova et al., 2012). Thus, we propose the following hypothesis:

*H7: the degree of technology intensity of the product positively affects the firm's export performance*

The amount of support given to a foreign distributor is likely to be affected by the size of the firm. Large firms appear to be in a better position to provide more support to the foreign distributor. The rationale for this argument is that larger firms have more resources. Insufficient resources reduce a firm's organizational capability to exchange information in the timely and in-depth manner necessary to coordinate task interdependencies with a foreign distributor (Welch and Luostarinen, 1988). Bello et al. (2003) indicate that insufficient resources reduce SMEs capacity to react to distributors' demands for change. Likewise, inadequate human and financial resources limit the manufacturer's organizational capability to exchange information in the timely manner necessary to coordinate the required task interdependences with a foreign partner. Large firms, therefore, have less difficulty in maintaining close ties with foreign distributors that enable trading partners to coordinate export tasks effectively (Root, 1998). This leads us to the following hypothesis:

*H8: the size of the firm positively affects the level of support given to the foreign distributor*

The size of the firm is likely to affect pricing decisions. Specifically, we propose that the greater the size of the firm, the more likely it is that it will adapt their pricing strategies in the foreign market. Although there are some studies which indicate that size has no significant impact on pricing decisions (Seifert and Ford, 1989), other studies suggest that size does have a positive impact on price adaptation (Sousa and Bradley, 2008). The rationale for this positive effect is that since an adaptation strategy requires greater financial resource commitment from the firm (Whitelock and Pimblett, 1997), it is likely that larger firms tend to adapt their strategies more because they possess more resources. Hence, the following hypothesis is presented:

*H9: the size of the firm positively affects the degree of price adaptation*

The relationship between firm size and export performance has been extensively discussed in export marketing literature (Sousa et al., 2008). However, despite the large number of studies, there has been little consensus regarding the impact of this variable on a firm's export performance. While some authors report a non-significant relationship between the size of the firm and export performance (e.g. Contractor et al., 2005), others have found the size of the firm to be positively related to export performance (e.g. Sousa and Bradley, 2008). However, the argument that the amount of resources may prevent small firms from succeeding in international markets has been questioned in the literature (e.g. Czinkota and Johnston, 1983; Moen, 1999). Bonaccorsi (1992) showed that foreign markets are quite accessible and that small firms with non-brand products are capable of penetrating several foreign markets and exporting a large share of their total turnover

with very limited resources. As such, it is more likely that the quality rather than the quantity of resources will determine a firm's export success. The literature is, therefore, divided regarding the impact that firm size has on the export performance of the firm. Although empirical findings have been mixed, we propose a positive relationship between size of the firm and export performance. The rationale for this positive relationship is that larger firms have more resources (personnel, financial, and marketing) that enable them to compete successfully in international markets (Aaby and Slater, 1989; Wheeler et al., 2008). Thus, the following hypothesis is considered:

*H10: the size of the firm positively affects the export performance of the firm*

It is hypothesized that export performance is positively affected by a firm's support for a foreign distributor. This argument is consistent with a meta-analysis study (Leonidou et al., 2002) where a strong link between distributor support and export performance was found. Results indicate that firms increasingly rely on distributors for distribution and marketing activities (Merritt and Newell, 2001). In this context, distributors also function as the firms' marketing tool, transferring knowledge of customer needs and market trends back to firms (Paun, 1997), demonstrating the importance of supporting and collaborating with distributors in the foreign market. Personal relations with distributors represent major sources of market information. Personal sources, whereby firms and distributors exchange what is defined as experiential information, prevail over impersonal sources of information that firms might obtain from government publications, statistical data, and market research. Moreover, cooperation can enhance the implementation of new ideas

and foster the achievement of mutual objectives (Quelch and Hoff, 1986; Powers and Loyka, 2010). Thus, intense interactions and cooperation between the firm and the foreign distributor tend to lead to strategic gains and enhanced export performance (Rosson and Ford, 1982). This leads us to the following hypothesis:

*H11: the level of support given to the foreign distributor positively affects the export performance of the firm*

Export pricing strategy has been identified as a key determinant of the export performance of the firm (Sousa et al., 2008; Zou and Stan, 1998). In this context, several studies have examined the impact of price adaptation on the export performance of the firm (Sousa and Bradley, 2008; Zou et al., 1997; Lages et al., 2008). However, in a review of the literature, Tan and Sousa (2011) reports that the pattern of findings regarding the impact of price adaptation on export performance is mixed. Some studies found price adaptation to have a non-significant impact on export performance (e.g. Waheeduzzaman and Dube, 2003), whilst others found it to have a negative influence (e.g. Chung and Wang, 2007; Lages and Montgomery, 2005), and a third group of researchers found price adaptation to be positively related to export performance (e.g. Lee and Griffith, 2004; Shoham, 1996). In our study, we expect price adaptation to have a positive impact on the export performance of the firm. A firm that adapts its pricing strategy to the characteristics of the foreign market is more likely to enhance its export performance (Samiee and Roth, 1992). As the fundamental element of value delivery entails satisfying customers' needs and desires, price adaptation is theoretically justifiable

and suggestive of a positive effect (Lages et al., 2008). This is consistent with previous results that found a positive relationship between price adaptation and export performance (Das, 1994; Koh, 1991; Shoham, 1996). The rationale for this argument is that by adapting a firm's marketing strategy to market specific characteristics, a firm can deliver greater value in the local market by meeting local market needs, thereby improving its export performance (e.g. Cavusgil and Zou, 1994; Shoham, 1999). As such, we hypothesize:

*H12: the degree of price adaptation positively affects the export performance of the firm*

However, the argument that export performance will always increase with greater degrees of price adaptation has been questioned in the literature. As indicated above, a review of the literature indicates that the impact of price adaptation on export performance has been mixed and inconclusive. Although not tested empirically, recent articles (e.g. Özsomer and Simonin, 2004; Tan and Sousa, 2011) suggest that these conflicting findings in the literature could be due to the non-linear relationship that may exist between price adaptation and export performance. Accordingly, we propose testing an alternative hypothesis that suggests that the relationship between price adaptation and export performance is non-linear in nature.

Several studies have found that very high degrees of price adaptation have a positive impact on export performance (e.g. Lee and Griffith, 2004). However, several other

papers also found that firms with low degrees of price adaptation perform well in export markets (e.g. Sousa and Bradley, 2008). Whilst the first group of researchers favours an adaptation approach because they consider markets to be heterogeneous, the second group favours a standardization approach, arguing that the forces of globalization contribute toward the homogenization of world markets. In addition, by following a standardization approach, firms do not incur the investment costs associated with the development and maintenance of an adaptation strategy. On the other hand, firms with mid-range degrees of adaptation may perform poorly because they may not adapt sufficiently their pricing strategy to the characteristics of the foreign market. As a result, these firms would be at a disadvantage when competing with firms that adopt high degree of adaptation strategy. At the same time, they are failing to focus on an efficiency approach when compared with those firms that follow a standardization strategy (low degree of adaptation). Accordingly, we expect to observe a U-shaped relationship between price adaptation and export performance. Thus, we present the following alternative hypothesis:

*H13: there is a U-shaped relationship between the degree of price adaptation and the export performance of the firm*

Finally, and although we do not develop a formal hypothesis, we examine whether strategy (i.e. price adaptation and distribution support) mediates the relationship between internal resources and performance. While the mediating role of export strategy in the resource–performance relationship has been advanced and well-argued in a number of

studies, the empirical validation of this proposition is very limited (Beleska-Spasova et al., 2012). Following the resources – strategy - performance model it is argued that firm strategies in conjunction with the firm's resources determine firm performance. The literature suggests that in the case of small firms, the manager's strategic decisions, together with resource choices, determine a firm's ultimate performance (Edelman et al., 2005). Therefore, the quality of a firm's strategy cannot be evaluated independently of the firm's resources upon which it is based on (Barney and Zajac, 1994). Similarly, having superior resources does not guarantee success, as firms have to mobilize these resources adequately if they are to gain competitive advantage (Hunt and Morgan, 1995). This suggests that superior performance may be obtained by the appropriate alignment of strategy to resources. Consistent with this view, a small number of articles have suggested that strategies mediate the relationship between resources and firm performance (Edelman et al., 2005; Chrisman et al., 1998; Beleska-Spasova et al., 2012). As a consequence, we propose examining whether strategies (i.e. price and distribution) act as a mediating variable in transforming a firm's resources (i.e. technology intensity and firm size) into superior export performance.

### **3. METHODOLOGY**

#### **3.1. Sample and data collection procedure**

The study was conducted using a sample of exporting firms based in a region located in north-east Italy (the Veneto region) which has long depended on international trade (Bonaccorsi, 1992). Although we used a multi-industry sample to increase observed



variance and to strengthen the generalizability of the results (Morgan et al., 2004), the units studied are manufacturing firms, which compete in foreign markets through some specific products. The sample comprised 845 small and medium-sized exporting firms from all parts of the region. The effective response rate was 18.2 percent (154 usable questionnaires). This is a good response rate, considering that the average top management survey response rates are in the range of 15 to 20 percent (Menon et al., 1996).

Particular attention was also paid to identifying and selecting the most appropriate person in each firm to participate in the study. Given the degree of involvement and direct responsibility in decision making, the manager was considered to be a major force behind the initiation, development, sustenance, and success of a firm's foreign activities. To ensure the reliability of the data, the respondents selected were senior managers and export managers with responsibility for foreign operations (see Appendix A). The approach suggested by Huber and Power (1985) of using a single key informant was also adopted, with a view to minimizing the potential for systematic and random sources of error. In order to ensure that the most appropriate person would receive the questionnaire, each firm was contacted by telephone beforehand.

As for the unit of analysis we focused on the firm's main export venture. This decision was taken following exploratory interviews with managers. Managers indicated that they typically developed a marketing strategy only for their main export venture. The selection of the main export venture as the unit of analysis is further corroborated by several

researchers (e.g. Cavusgil et al., 1993; Lages et al., 2008) who argue that a single export venture allows us to associate marketing strategy more precisely with its antecedents and outcomes.

To explore the issue of non-response bias we tested for differences between early and late respondents (Armstrong and Overton, 1977). According to Weiss and Heide (1993) early responses were defined as the first 75 per cent of returned questionnaires. The final 25 per cent were considered late responses and representative of firms that did not respond to the survey. Using a *t*-test, early and late respondents were compared on all variables but no significant differences were found (at the conventional 0.05 level). Based on these results, it was concluded that non-response bias did not appear to be a significant problem in this study. Moreover, since anonymity was guaranteed, bias associated with those who did not wish to respond for confidentiality reasons was also reduced (Bialaszewski and Giallourakis, 1985).

It is generally recognized that a common method bias is a potential problem in surveys. As a result we decided to investigate whether the presence of common method bias might have inflated construct inter-relationships. This can be particularly threatening when respondents are aware of the conceptual framework of interest. Respondents were not told the specific purpose of the study however, and all construct items were separated and mixed so that no respondent should have been able to detect which items were associated with which factors (Jap, 2001). Moreover, anonymity should have further reduced method biases (Podsakoff et al., 2003), thereby minimizing the possibility of

common methods variance bias. Nevertheless, two statistical tests were conducted to determine the extent of possible method variance in the data. The Harman one-factor test (Podsakoff and Organ, 1986) demonstrated that the risk of common method variance was unlikely to be significant in this case because exploratory factor analysis showed that no single general factor accounted for most of the variance. In order to confirm these results, additional analyses were performed to test for common method variance following the procedure recommended by Podsakoff et al. (2003). Following this approach, we re-estimated the confirmatory model with all the indicator variables loading on a general method factor. The resulting model fit was unacceptable. Lastly, further supporting evidence that the constructs were distinct was provided when testing for discriminant validity in the confirmatory factor analysis.

### **3.2. Measures**

The survey instrument used was developed following a comprehensive review of the relevant literature. Four academic experts who were familiar with the topic under investigation assessed the content and face validity of the survey. To evaluate individual item content, clarity of instructions, and response format, we tested the questionnaire in a series of face-to-face settings with 15 managers involved in export operations.

The items used to operationalize each construct were developed on the basis of existing literature (see Appendix B). Drawing on previous studies (Zou et al., 1998; Robertson and Chetty, 2000; Morgan et al., 2004), we operationalized *export performance* using four items: meeting expectations, export sales growth, export profitability, and export

market share. In relation to *price adaptation* we adopted the measures developed by Sousa and Bradley (2009b). Price strategy was measured by the level of adaptation of margins, credit concession, and pricing strategies. *Distribution support* was measured by asking respondents to indicate the overall level of support for the foreign distributor; the level of interaction between the company's employees and those of the foreign distributor, including phone calls, exchange of documents and visits; the level of cooperation between the company and foreign distributor for the development of product and communication strategies; and, finally, the extent to which this distribution support was planned (Cavusgil and Zou, 1994; Sousa and Bradley, 2009a). The *technology intensity* of the products was assessed by asking respondents to indicate the degree of technological content on a five-point scale ranging from technology intensity to non-technology intensity. *Environmental characteristics* were measured using items that focused on economic/industrial development, marketing infrastructure, communications infrastructure, and technical requirements (Theodosiou and Katsikeas, 2001; Shoham, 1999). As regards *firm size*, there is no universally accepted measure for capturing company size. Therefore, we employed the most commonly used criteria, namely number of employees and annual turnover. Finally, *competitive intensity* was measured by following the measurement model developed by Cavusgil and Zou (1994) and later by Morgan et al. (2004). These items consider the willingness and ability of rivals to respond to competitive moves in the principal market.

## 4. ANALYSIS AND RESULTS

### 4.1. Measurement Model Reliability and Validity

In order to assess the validity of the constructs, the items were examined by confirmatory factor analysis (CFA) using AMOS. Discriminant validity, convergent validity, and scale reliability were assessed by confirmatory factor analysis in line with the paradigm advocated by Gerbing and Anderson (1988). In CFA, each item is restricted to load on its pre-specified factor. Table 1 shows the results obtained from the estimation of the CFA model. Technological intensity is a single indicator construct, and thus measurement errors are assumed to be zero. Measurement error in the number of employees was constrained to zero to prevent a negative error variance (Bollen and Long, 1993). The overall chi-square for this model was 251.162 ( $p = 0.002$ ) with 189 degrees of freedom (df). Four measures of fit were examined: the comparative fit index (CFI = 0.965), the Tucker-Lewis fit index (TLI = 0.957), the incremental fit index (IFI = 0.965), and the root mean square error of approximation (RMSEA = 0.046). The results suggest that the scale measures were internally consistent, able to discriminate, and provided a good fit of the factor model to the data.

\*\*\*\*\*  
Insert Table 1 about here  
\*\*\*\*\*

An inspection of these results shows that the items employed to measure the constructs were both valid (convergent validity and discriminant validity) and reliable (composite reliability and variance extracted). More specifically, convergent validity is evidenced by the large and significant standardized loadings ( $t > 1.96$ ,  $p < .05$ ) of the items on the

respective constructs. Discriminant validity, on the other hand, was assessed by observing the construct intercorrelations. These were significantly different from 1, and the shared variance between any two constructs (i.e. the square of their intercorrelation) was less than the average variance explained by the items in the construct (Fornell and Larcker, 1981). The correlation matrix for the constructs is shown in Table 2. Adequate discriminant validity is evident for all constructs since their diagonal elements are greater than the off-diagonal elements in their corresponding rows and columns in the upper triangle.

\*\*\*\*\*  
 Insert Table 2 about here  
 \*\*\*\*\*

In regard to the reliability of the constructs, Table 1 presents the results of composite reliability and variance extracted. The values for composite reliability, ranging from 0.92 for export performance to 0.71 for competitive intensity, considerably exceed (Bagozzi and Yi, 1988) recommended minimum level of 0.60. In terms of the variance extracted, only competitive intensity fell slightly short of the 0.50 guideline, whilst all others exceeded the recommended level. We can therefore conclude that for all constructs the indicators were sufficient and adequate in terms of how the measurement model was specified.

#### **4.2. Structural Model**

Given the confirmatory nature of our research, structural equations were used by applying the maximum likelihood (ML) method. The overall chi-square for the model in Figure 2

was significant ( $\chi^2 = 439.162$ ,  $df = 334$ ,  $p < 0.001$ ). As with the CFA model, the other measures of fit were: the comparative fit index (CFI = 0.959), the Tucker-Lewis fit index (TLI = 0.953), the incremental fit index (IFI = 0.959), and the root mean square error of approximation (RMSEA = 0.045). Given that all the fit indices were within conventional cut-off values, the model was deemed acceptable as it reproduces the population covariance structure (Vandenberg and Lance, 2000). The relationships proposed in the model were examined next.

\*\*\*\*\*  
 Insert Figure 2 about here  
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Consistent with hypothesis H2, the results indicate that the greater the differences between home and export markets, the higher the degree of price adaptation of the firm as indicated by a parameter estimated as 0.188 ( $p < 0.05$ ). The results for H1 (0.041;  $p > .10$ ), however, show that the relationship between environmental characteristics and distribution support is not significant. Contrary to expectations, the results suggest that competitive intensity has a negative effect on the distribution support (-0.197;  $p < 0.05$ ), thereby refuting H3. In relation to H4, the findings indicate that the relationship between competitive intensity and price adaptation is not significant (-0.031;  $p > .10$ ). As predicted by H5, the level of technological intensity of the product has a significant positive impact on the support given to the firm's distributor (0.466;  $p < 0.01$ ). In contrast, the results relating to the direct effect of technology intensity on price adaptation (H6) and on export performance (H7) were found not to be statistically significant ( $p > .10$ ). While the strong and positive coefficient between firm size and export performance provides support for

H10 (0.342;  $p < 0.01$ ), the impact of firm size on distribution support (H8) and on price adaptation (H9) was found not to be significant ( $p > .10$ ). Supportive findings for H11 (0.453;  $p < 0.01$ ) indicate that export performance is positively influenced by the level of distribution support. Finally, while the result for H12 shows that the relationship between price adaptation and export performance was not significant ( $p > .10$ ), our study provides support for the alternative hypothesis (H13), since the coefficient for the quadratic term of price adaptation is positive and significant (0.116;  $p < 0.05$ ). This provides evidence of a U-shaped relationship between price adaptation and export performance.

In order to check the structural model fit, we created the constrained model where only the main effects are allowed to be freely estimated; the quadratic term was fixed at zero. In the unconstrained model, the quadratic term is freely estimated. The reduction in chi-square on moving from the constrained to the unconstrained model is significant ( $\Delta df = 1$ ;  $\Delta Chisquare = 3.85$ ;  $p = 0.05$ ), indicating that the unconstrained model provides a better fit than the constrained model.

#### **4.3. Testing for Mediation Effects**

Although we did not formally develop a mediation hypothesis, we did examine whether export strategy mediates the relationship between internal resources and performance. Whilst there was no indication that export strategy mediates the impact of firm size on export performance, the results did suggest that distribution support may act as a mediating variable in the relationship between technology intensity and export performance. To test for the mediating effect we followed a three-step approach



recommended by Baron and Kenny (1986). To meet the first mediation condition, we found that technology intensity is significantly related to distribution support, thus satisfying the first condition of mediation. To test the second mediation condition, we estimated a new model that specifies only the direct paths between technology intensity and export performance. It was found that in the absence of distribution support, technology intensity is significantly related to export performance. This result satisfies the second condition of mediation. Finally, after entering the mediator distribution support, the results indicate that distribution support is significantly related to export performance and that technology intensity no longer significantly affects export performance. This suggests that distribution support fully mediates the impact of technology intensity on the firms' export performance.

## **5. DISCUSSION AND IMPLICATIONS**

Although an increasing number of studies have examined the antecedents of export performance, little empirical attention has been paid to the impact of distribution support and price adaptation on export performance in comparison with other determinants. In order to contribute to filling this void in the literature, we have identified the factors that drive export performance, with special emphasis on the influence of distribution support and the non-linear relationship between price adaptation and export performance. We also examined the mediated effect of internal resources on performance, with export strategy as the mediator.

Our findings indicate that the performance of export ventures is strongly related to the support given to foreign distribution. Specifically, our results demonstrate that cooperation with the distributor in the foreign market may be based on social interaction between the company's employees and those of the foreign partner and have a positive impact on the export performance of the firm. This finding supports recent literature on SMEs (Sousa and Bradley, 2009a) which demonstrates that distribution is no longer a weak link in the value chain, but has now become one of the key elements in the success of SMEs abroad. Distribution support is also strongly related to the technology intensity of products. As indicated by previous studies (McGuinness and Little, 1981; Cavusgil and Zou, 1994), complex or technologically advanced products require support for their distribution, since foreign buyers may need the expertise of manufacturing companies in order to market products efficiently. This result might also support the view that firms establish long-term buyers-supplier relationships based on mutual trust in order to facilitate product innovation and learning, thereby implementing a technology strategy.

Beyond these issues, an important feature of our research findings is the relationship between technology intensity, distribution support, and export performance. Our results show that distributors are a critical factor in mediating the performance impact of technology products. This mediating effect would suggest that there is an underlying collaborative mechanism through which a firm's technological products contribute to its superior performance. Given the various benefits or strategic value of intermediaries and distributors, we assume that managers are eager and strive to exploit social relations with

external entities necessary for resource mobilization and opportunity identification. We contend that these forms of collaboration can help internationalizing firms overcome the resource limitations that frequently constrain an SME's international expansion and facilitate the development of new capabilities for international expansion at lower risks (Zhou et al., 2007). This model suggests that the mere possession of technologically-advanced products would not automatically yield better export performance unless they are associated with supplier-distributor collaboration. Our findings regarding the indirect effects on export performance of technological advanced products extend the findings of previous research (Rodriguez and Rodriguez, 2005) by providing novel empirical evidence of the critical role of distribution support in mediating between firms' internal resources and SMEs export success.

Despite some contradictory results in the literature regarding the impact of firm size on export performance (e.g. Sousa et al., 2008), our results support the view that firm size has a positive impact on the export performance of the firm. This is consistent with the longitudinal study by Majocchi et al. (2005) on Italian exporting firms. They found that firm size has a positive impact on export performance, even if the analysis is carried out over a 5 year period and not only on a cross-sectional basis. Larger firms can generally capitalize on production economies of scale more easily than smaller firms and may also be better organized to capitalize on the potential benefits of globalization than smaller firms (Mittelstaedt et al., 2003). Although our results support a positive relationship between size and export performance, recommending SMEs to increase in size in order to improve their performance in foreign markets is probably a too simplistic approach in

order to grasp the complexity of such a relationship. For instance, we should be aware that this result is based on a selection of small - and medium-sized firms only, as the sample frame does not include larger companies. Moreover, previous studies have found that size is positively related to the propensity to export, but that size only matters for smaller firms (Calof, 1994). Nonetheless, the results appear to suggest that in the case of SMEs, the amount and availability of resources may help small firms to succeed in international markets.

In contrast to our initial expectations, the results show that the level of competitive intensity of the foreign market negatively affects the level of support given to the foreign distributor. Assuming that exporting technological intensive products may require long-term collaboration with distributors, it might be argued that SMEs use their limited resources to build and sustain distributor support only in those markets where competition is less intense. Costly and time-consuming external relationships may not be outweighed by the reduced margins resulting from market competition. As pointed out by Bonaccorsi (1992), in highly competitive foreign markets, local intermediaries have many alternatives and may work with a multitude of different foreign partners. In such circumstances, intermediaries might display opportunistic behaviour and use market or product information in a self-interested way. In this sense, intermediaries might no longer be seen as the firm's right arm in foreign markets. To shed further light on the negative relationship between competitive intensity and distribution support, we interviewed a sample of Marketing Directors who participated in the research. The Marketing Director

of a company operating in the global apparel sector explained this finding in the following way:

*“In highly competitive markets the distributor does not play a key role, since in such competitive markets the distributor has often agreements with other firms. As a result, the distributor is not as loyal and committed to your firm because they are involved in many relationships”*

This comment appears to provide further support for Bonaccorsi (1992) argument that distributors in highly competitive markets can display opportunistic behaviours which may induce tensions and strains in the relationship, leading to a decrease in support by the export firm. Nonetheless, despite the possibility of opportunistic behaviours by the distributor, we believe that in order for the firm to succeed in highly competitive markets it is necessary to support and collaborate with the distributor in order to obtain the desired attention for the firm's products as well as crucial local-market knowledge.

As expected, the results strongly support the hypothesis that the degree of price adaptation is influenced by the environmental differences that exist between the home and foreign market. This supports the results of previous studies (e.g. Theodosiou and Katsikeas, 2001; Sousa and Bradley, 2008) and reinforces the need for managers to correctly assess the foreign environment, since the quality of a pricing strategy decision is only as good as the quality of the accumulated information on which the pricing decision is based.

Finally, our results show that price adaptation has no significant impact on the export performance of the firm. This seems to be consistent with a recent review paper on export pricing that shows the results regarding the impact of price adaptation on export performance to be inconsistent and often contradictory (Tan and Sousa, 2011). Despite the amount of research in this area over the last four decades, these inconsistent and often conflicting results show the complexity and difficulty of investigating this topic because of the uncertainties associated with today's dynamic environment, together with the large number of factors that need to be taken into account when examining export pricing decisions. A possible explanation is that the relationship between price adaptation and export performance is non-linear (Özsomer and Simonin, 2004). This argument is supported in our study since the results indicate a nonlinear relationship between price adaptation and export performance. Specifically, our findings provide support for the alternative hypothesis (H13) that there is a U-shaped relationship between price and export performance. In other words, firms with high degrees of price adaptation perform well as do firms with very low degrees of price adaptation. On the other hand, firms with mid-range degrees of price adaptation will be outperformed in the foreign market by firms with high and low degrees of price adaptation.

Thus, as firms start to adapt their pricing strategy, their export performance experiences an initial decrease (downward slope of the U-shaped curve), whilst in the case of higher degrees of price adaptation the export performance increases (upward slope of the U-shaped curve). A price adaptation strategy requires significant investments in product-service quality and market research (Porter, 1980). A standardised pricing strategy might

therefore be more effective for SMEs because the costs associated with adaptation are avoided, thereby leading to better export performance. In addition, a standardized strategy permits scale economies, synergies, efficiencies, and simplifies planning (Levitt, 1983; Hamel and Prahalad, 1985). However, as firms start to adapt their pricing strategy, the initial impact on export performance is negative (downward slope of the U-shaped curve) due to the cost implications of adapting their strategy. At the same time, the level of adaptation is not high enough to take into account all the idiosyncrasies of the foreign market. Beyond a mid-range point of price adaptation (upward slope of the U-shaped curve), the paybacks will be more beneficial because of continued investment in understanding customers' needs and by adapting the pricing strategy accordingly. This means that the positive impact of price adaptation on export performance will be greater than its investment. This nonlinear relationship finds further support in the strategy literature. Porter (1980) states that a cost strategy (which is similar to standardization) or differentiation strategy (which is similar to adaptation) may be pursued since there is an inherent potential to achieve the same profit level with either strategy (U-shaped curve). Nonetheless, this is an issue that warrants further empirical investigation.

## **6. LIMITATIONS AND DIRECTIONS FOR FURTHER RESEARCH**

Several limitations of this research should be acknowledged which, in turn, pose opportunities for future research. Firstly, we explored distribution support from the exporting firm's perspective, neglecting the other side of the relationship dyad. It would be interesting for future research to consider how distributors react to different levels of

support and cooperation from exporting SMEs. Another possible limitation of this study is that the survey was restricted to firms in Italy, which could raise questions regarding the extent to which the findings can be generalized. Testing the external validity of our findings would necessitate replication of this study in other countries. The study also employed a cross-sectional research design which could be criticized for failing to capture the dynamic aspects of the constructs incorporated in the model. Thus, future work should consider adopting a longitudinal design that would provide an insight into these relationships over time.

Another fruitful avenue for research would be to examine the interaction effects of distribution support and price adaptation. For instance, a recent study by Sousa and Bradley (2009b) has found that distribution strategies may influence a firm's export pricing strategy. This suggests that instead of hypothesizing that distribution support and price adaptation independently influences export performance, future studies should consider the possible interaction effects of these two constructs. In addition, future studies should continue to investigate the mediating role of strategy in the resource-performance relationship. Although there are theoretical arguments in the literature to support the mediating role of strategy, the empirical validation of this proposition is still very limited (Beleska-Spasova et al., 2012).

Finally, further research is required into the issue of non-linearity between price adaptation and export performance. In this context, future studies should consider examining nonlinear relationships between the other elements of the marketing mix and



export performance. We believe that a formal study of the nature of the relationship between adaptation and export performance is a promising area for future research.

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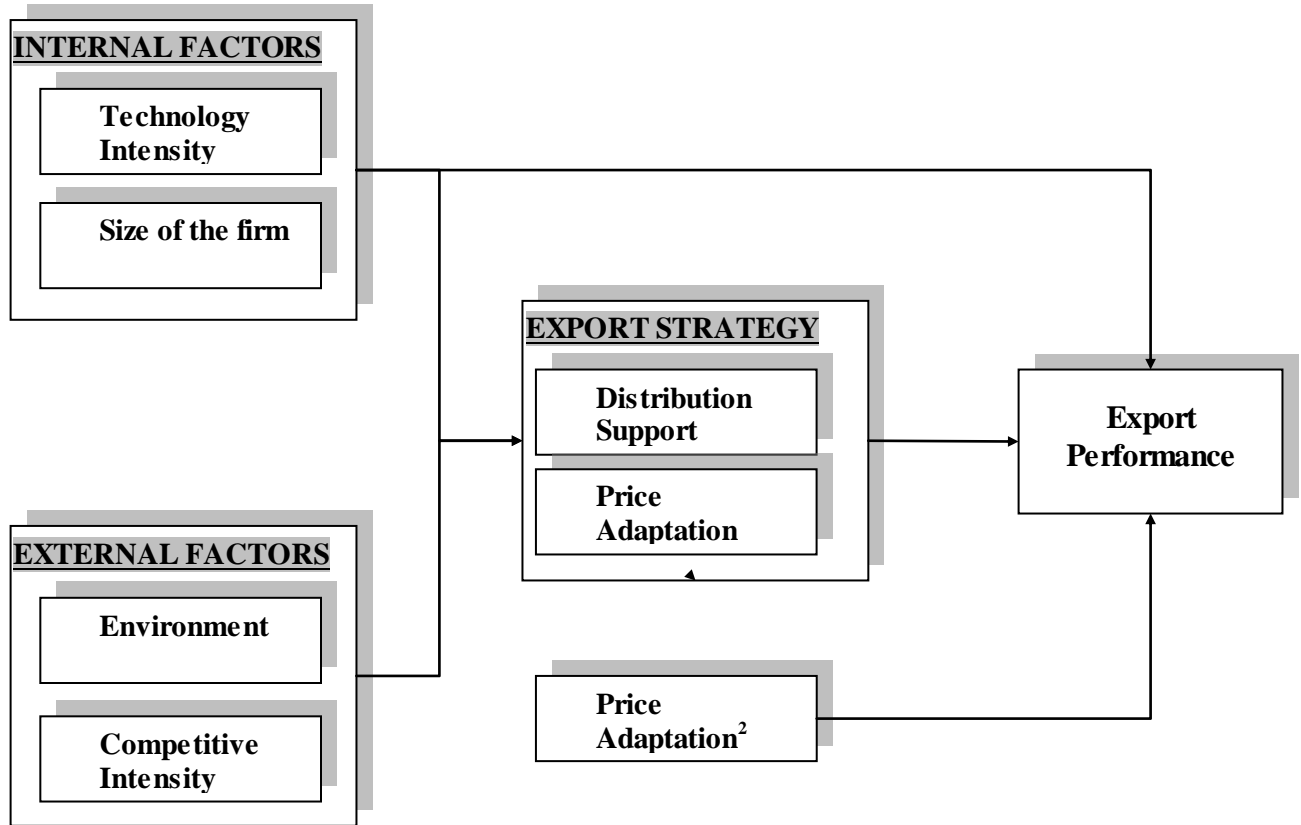
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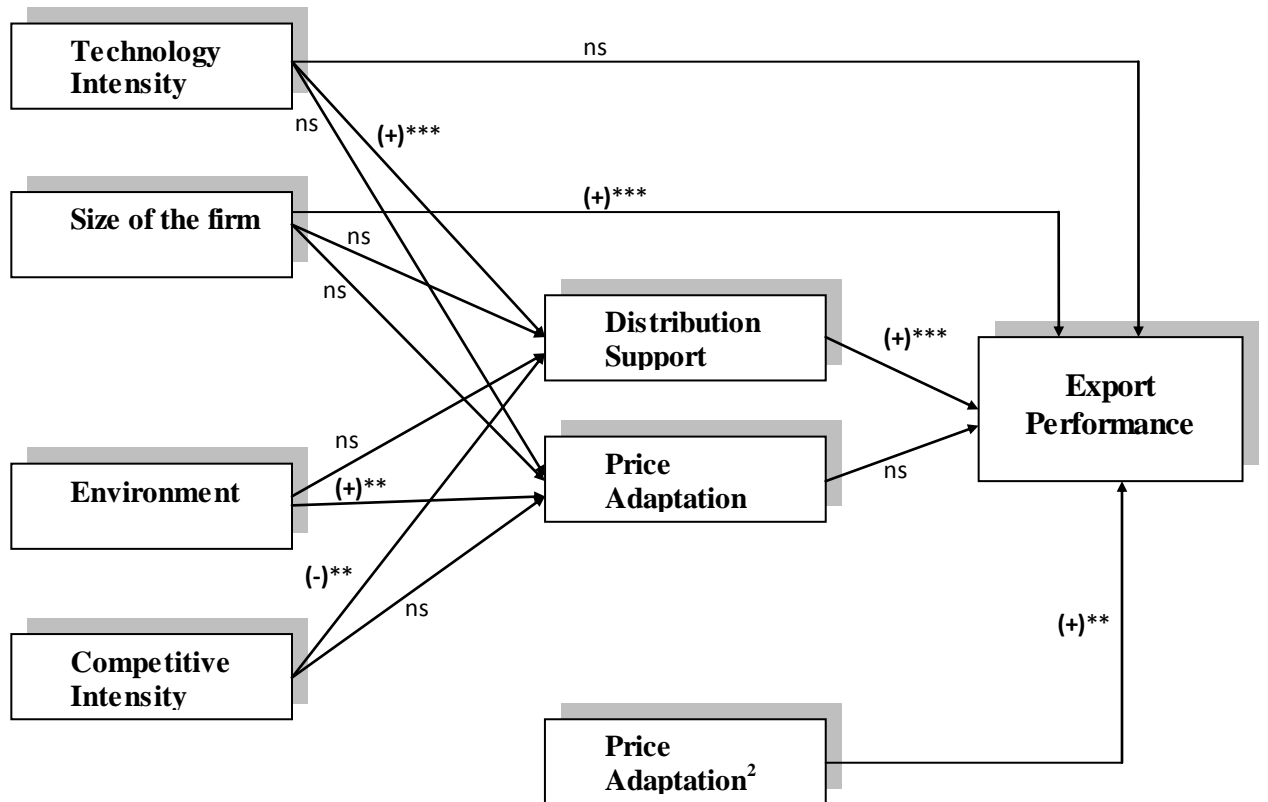


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**Figure 1: The Conceptual Model**



**Figure 2: Final Model**



Note: \*\*\*<0.01; \*\*<0.05; \*<0.1; ns=non-significant

**Table 1: Construct Measurement Models and Reliability**

Constructs and items	Standardized Loadings	t-value
<b>Export Performance (CR* = 0.92; AVE** = 0.76; <math>\alpha_c</math>*** = 0.94)</b>		
Export sales growth	0.911	
Meeting expectations	0.772	15.121
Export Profitability	0.875	13.818
Export Market Share	0.922	16.722
<b>Price Adaptation (CR = 0.86; AVE = 0.68; <math>\alpha_c</math> = 0.87)</b>		
Margins	0.809	
Credit concession	0.928	11.010
Pricing Strategies	0.730	9.895
<b>Environment (CR = 0.88; AVE = 0.66; <math>\alpha_c</math> = 0.88)</b>		
Economic/industrial development	0.695	
Marketing infrastructure	0.905	10.017
Communications infrastructure	0.894	14.934
Technical requirements	0.737	10.959
<b>Distribution Support (CR = 0.81; AVE= 0.52; <math>\alpha_c</math> = 0.81)</b>		
Cooperation with distributors on marketing strategies	0.731	
Support to foreign distributors	0.809	8.856
Level of interaction with distributors	0.753	8.400
Distributor support planning	0.600	6.786
<b>Size of the firm (CR = 0.78; AVE = 0.64; <math>\alpha_c</math> = 0.81)</b>		
Number of employees	0.752	
Annual turnover	0.837	5.698
<b>Competitive intensity (CR = 0.71; AVE = 0.46; <math>\alpha_c</math> = 0.77)</b>		
Competition in our export market is cut-throat	0.494	
Anything that one competitor can do others can match easily	0.743	5.037
One hears of a new competitive move every day	0.772	5.010
Model fit indices are as follows: chi-square = 251.162; df = 189 ( $p$ = 0.002); CFI=0.965; TLI=957; IFI=0.965; RMSEA=0.046		

\*Composite reliability (CR) (Bagozzi, 1980)

\*\*Average variance extracted (AVE) (Fornell and Larcker, 1981)

\*\*\*Cronbach Alpha ( $\alpha_c$ )

**Table 2: Convergent and Discriminant Validity Tests**

<b>Construct</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>1. Export Performance</b>	<i>0.872</i>					
<b>2. Distribution Support</b>	0.536	<i>0.721</i>				
<b>3. Price Adaptation</b>	0.078	0.125	<i>0.825</i>			
<b>4. Environment</b>	- 0.009	0.089	0.195	<i>0.812</i>		
<b>5. Competitive intensity</b>	- 0.252	- 0.128	- 0.045	- 0.188	<i>0.678</i>	
<b>6. Size of the firm</b>	0.467	0.219	0.047	0.131	- 0.318	<i>0.800</i>

Note: the diagonal is the square root of the average variance extracted

## Appendix A

### Sample characteristics

	Mean (S.D.)	Median	Mode
Firm employee size	58 (89)	24	15
Firm annual turnover	€300.000 to €1M	€1M to €3M	€1M to €3M
Years firm has been engaged in exporting	23 (15)	22	28
Number of export markets	17 (22)	10	3

Note: S.D. = standard deviation

	N	%
<b>Position</b>		
Export Managers	63	41
Senior Managers	51	33
Managing Directors	40	26
<b>Years of export experience</b>		
Up to 5 years	14	9
6 to 10 years	55	36
11 to 15 years	46	30
16 to 20 years	21	13
Over 20 years	18	12
<b>Education</b>		
Secondary school	25	16
High-school	56	36
University degree	63	41
Master	10	7

## **Appendix B**

### **Constructs and Measures**

#### **ENVIRONMENT**

**Scale:** 1 (very similar) to 5 (very different)

- Economic/industrial development
- Marketing infrastructure
- Communication infrastructure
- Technical requirements

#### **COMPETITIVE INTENSITY**

**Scale:** 1 (strongly disagree) to 5 (strongly agree)

- Competition in our export market is cut-throat
- Anything that one competitor can do others can match easily
- One hears of a new competitive move every day

#### **TECHNOLOGY INTENSITY**

**Scale:** 1 (not technology intensive) to 5 (highly technology intensive)

- Degree of technological content

#### **SIZE OF THE FIRM**

- Number of employees
- Annual turnover

#### **PRICE ADAPTATION**

**Scale:** 1 (very similar) to 5 (very different)

- Margins
- Credit concession
- Pricing strategies

#### **DISTRIBUTION SUPPORT**

**Scale:** 1 (none) to 5 (substantial)

- Cooperation with distributors on marketing strategies
- Support to foreign distributors
- Level of interaction with distributors
- Distributor support planning

#### **EXPORT PERFORMANCE**

**Scale:** 1 (very unsatisfied) to 5 (very satisfied)

- Export sales growth
- Export profitability
- Export intensity
- Degree of meeting expectations